

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/527,100
Source: PCT
Date Processed by STIC: 05/12/2006

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:02

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set: N:\CRF4\05122006\J527100.raw

3 <110> APPLICANT: SARAH C. BODARY
 4 JANET K. JACKMAN
 5 BRISDELL HUNTE
 6 HILARY CLARK
 7 JILL R. SCHOENFELD
 8 P. MICKEY WILLIAMS
 9 WILLIAM I. WOOD
 10 THOMAS D. WU
 12 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TREATMENT OF IMMUNE
 13 RELATED DISEASES
 15 <130> FILE REFERENCE: P1977R1-US
 17 <140> CURRENT APPLICATION NUMBER: US 10/527,100
 18 <141> CURRENT FILING DATE: 2005-03-09
 20 <150> PRIOR APPLICATION NUMBER: PCT/US03/028317
 21 <151> PRIOR FILING DATE: 2003-09-10
 23 <150> PRIOR APPLICATION NUMBER: US 60/410,340
 24 <151> PRIOR FILING DATE: 2002-09-11
 26 <160> NUMBER OF SEQ ID NOS: 106
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 1989
 30 <212> TYPE: DNA
 31 <213> ORGANISM: Homo sapiens
 33 <400> SEQUENCE: 1
 34 ggcacgaggg cgtcacgggc gcccggcccc ttaaaacgct gctggctgga 50
 36 gccacctccc tccctgcagc ccgcaacggg aatggagtaa agggagaccc 100
 38 gtcgacctgg ccacggggat cagcgatgga attaaagcaa tctttgtcca 150
 40 cccatctgga agccgagaag cctctgaggc gctatggggc ggtggaggag 200
 42 acggcttgga aaacggagag actggggaga aatcagctgg acatcatctc 250
 44 catggcggag acaaccatga tgccagagga gattgagctg gagatggcaa 300
 46 aaattcagcg tctccgggaa gtcttggtcc gccgggagtc tgagctcagg 350
 48 ttcatgatgg atgacatcca gctctgcaag gacatcatgg acttgaagca 400
 50 ggagctgcag aacttggtcg ccatcccaga aaaagaaaaa accaaactgc 450
 52 agaagcagag agaggatgag ctaatccaga agatccacaa actggtgcag 500
 54 aagagagact tcctggtgga cgatgcggag gtcgagcggg taaggagca 550
 56 agaagaagac aaggaaatgg ctgatttcct gagaatcaag ttaaaacctc 600
 58 tagacaaagt aaccaaactc ccagccagct cccgggcaga gaagaaagca 650
 60 gagccccac ctagcaagcc cacggtggcc aagacggggc tggcactgat 700
 62 caaggattgt tgcggggcca ccagtgcaa catcatgtag ccccccactg 750
 64 ggggtgccctg ggccatgggg accccccccc accctcttgt ctttatagcc 800
 66 cccatttcac cggggcccaa gagctctcca aggcagaagg ggttgaaggc 850
 68 aagcccgtga ctgtcaccag aggccatggg cacggcaggc gggcctggcc 900
 70 accctgtaca gagtgtagca gtagggagtc tctcaccgtc gcatggtcct 950
 72 cccagagca tgccgaaccc aggagtctgt ctcactgttt atccaaacac 1000

CPg-6)

RAW SEQUENCE LISTING

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:02

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set: N:\CRF4\05122006\J527100.raw

```

74  caggaaaggt cctccctcaa aaaagcatat ctccacttct ctctagctgt 1050
76  atctaacca ccgtgtgaat gaactgggag aggggcatgc tcccagctg 1100
78  tgtgtagtcg tgactttctca acaatctagc accatgtcgg acacgttccc 1150
80  catccaccct cctagctctg ctctcagagc taggcacatg ggcacaggtc 1200
82  cctcccgctc tgtcctctcc cagcaactgt gccctggagg gctccacatg 1250
84  gcccccggtg ctctcgggca ccacccatat agcagtccca gagggcccat 1300
86  ctgtaaagat cgagcttggtg tgtgggtgtcg tggtcacatc tcccgttcc 1350
88  ccccatcctg tgtctgggca cagttcacat caggacagcg tccattgtgc 1400
90  tctcagtctg cctcaggtgt gtgcctggag ggggcctgga ctggcatgga 1450
92  tccagtgtgc agaagagcca gcagggaacc ggaagctctg atgtcaaggc 1500
94  cagagcagtt gagaatggga cccagagtag atgctgacct gggcactcca 1550
96  ccattccggg gccaccacag agatgccagc aggatgccac tttgccagcc 1600
98  cgacacacgg acctttgtaa agaacagcaa caggcaggag aggcagcgtg 1650
100 tgaccagatt gtgtcccgctc attgggtggc atatgttaac tagctgcca 1700
102 acaacttcaa cccgtgtaat tcatgtacat ttgcaacagc cagcccggta 1750
104 cagcctgtgt gacttctctg tatgtgtgtg tgtgtcgtga ccagcctaag 1800
106 tagttagcat aactcaagat gctgatgtgc agtcacccat cagagaaaat 1850
108 aaaaatggaa accacgttca cagcatttta aaagttttta ctttttttct 1900
110 tgattatgga agtaatccat gtacatagta aatcatttta aaagtacaaa 1950
112 aagtatgaag aagtttgtct taaaaaaaaa aaaaaaaaaa 1989
114 <210> SEQ ID NO: 2
115 <211> LENGTH: 245
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
119 <400> SEQUENCE: 2
120 His Glu Gly Val Thr Gly Ala Arg Pro Val Lys Thr Leu Leu Ala
121 1 5 10 15
123 Gly Ala Thr Ser Leu Pro Ala Ala Arg Asn Gly Asn Gly Val Lys
124 20 25 30
126 Gly Asp Pro Ser Thr Trp Pro Arg Gly Ser Ala Met Glu Leu Lys
127 35 40 45
129 Gln Ser Leu Ser Thr His Leu Glu Ala Glu Lys Pro Leu Arg Arg
130 50 55 60
132 Tyr Gly Ala Val Glu Glu Thr Ala Trp Lys Thr Glu Arg Leu Gly
133 65 70 75
135 Arg Asn Gln Leu Asp Ile Ile Ser Met Ala Glu Thr Thr Met Met
136 80 85 90
138 Pro Glu Glu Ile Glu Leu Glu Met Ala Lys Ile Gln Arg Leu Arg
139 95 100 105
141 Glu Val Leu Val Arg Arg Glu Ser Glu Leu Arg Phe Met Met Asp
142 110 115 120
144 Asp Ile Gln Leu Cys Lys Asp Ile Met Asp Leu Lys Gln Glu Leu
145 125 130 135
147 Gln Asn Leu Val Ala Ile Pro Glu Lys Glu Lys Thr Lys Leu Gln
148 140 145 150
150 Lys Gln Arg Glu Asp Glu Leu Ile Gln Lys Ile His Lys Leu Val
151 155 160 165
153 Gln Lys Arg Asp Phe Leu Val Asp Asp Ala Glu Val Glu Arg Leu
154 170 175 180

```

RAW SEQUENCE LISTING

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:02

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set: N:\CRF4\05122006\J527100.raw

```

156 Arg Glu Gln Glu Glu Asp Lys Glu Met Ala Asp Phe Leu Arg Ile
157                               185                               190                               195
159 Lys Leu Lys Pro Leu Asp Lys Val Thr Lys Ser Pro Ala Ser Ser
160                               200                               205                               210
162 Arg Ala Glu Lys Lys Ala Glu Pro Pro Pro Ser Lys Pro Thr Val
163                               215                               220                               225
165 Ala Lys Thr Gly Leu Ala Leu Ile Lys Asp Cys Cys Gly Ala Thr
166                               230                               235                               240
168 Gln Cys Asn Ile Met
169                               245

```

171 <210> SEQ ID NO: 3

172 <211> LENGTH: 649

173 <212> TYPE: DNA

174 <213> ORGANISM: Homo sapiens

176 <220> FEATURE:

177 <221> NAME/KEY: unsure

178 <222> LOCATION: 524

179 <223> OTHER INFORMATION: unknown base

181 <400> SEQUENCE: 3

```

182 catttttaaa cttttttttt aatttttattt tggtagctag gttttatatt 50
184 gttcttaaat ttattttact ctattttattt tttccatcac ttctttgtcc 100
186 cagattcatg aaatttgctg atgtccattt tatgtctact tttgaactct 150
188 tctctttgtg tttgttttgt tcttattaca aactccaaga catttccttag 200
190 aattgtctac agatttcgtg tagctactta ttggtagctt cttaatttca 250
192 tacttgtcca gaccattaga cattattaca tgctctgtct tgggcctatc 300
194 attaacatta gcttagggat tctgatttca aagacataaa gaattggcaa 350
196 aactcttctt acagaactta aaacaagttt taaagttaca tttctataca 400
198 tctaatacat aataccttct tagccattaa tgtaattcct ctggataaag 450
200 ataatatatt caaaaaatat tgggacccaaa aaatgcactt gtttcttgct 500
W--> 202 catatatata tagatgtaaa attnttttaa tttcttggtt gtttattttg 550
204 gttacattga atacagattt gctgaacagt tttgatgtta tttttttaat 600
206 aaaatttgta ttgttaaagt gccttggaaa tttctaataa ataacttca 649

```

208 <210> SEQ ID NO: 4

209 <211> LENGTH: 655

210 <212> TYPE: DNA

211 <213> ORGANISM: Homo sapiens

213 <400> SEQUENCE: 4

```

214 aaatatgtgg gttggaagaa agaacgtgta gtagcagagt tttgggatgg 50
216 gaaaatcgtg ttggttctgc cacatgatcc aagctttgct atcaaaaagg 100
218 tagaagatgt ccaagaactt gttgataatg aattgggctt ccagcaagtt 150
220 gttcctaaat gtccaaacaa aataaaaact tttcttgtaa tatctggatg 200
222 aaaagagagt agttgggtgt ttaattgcag aacccatcaa acaggcattt 250
224 cgtgtcctgt ctgaaccaat tgggtccagaa tccccaagct ctacggaatg 300
226 tcctagggct tggcaatgtt cagatgtacc agaacctgca gtctgtggga 350
228 taagtagaat ctgggttttc agactgaaga gaagaaagcg cattgcaaga 400
230 cgactggttg ataccctcag gaattgcttc atgtttggct gttttctcag 450
232 cactgatgaa atagcatttt ctgacccaac accagatggc aagttatttg 500
234 caaccaagta ctgcaacacc cctaatttcc tcgtatataa ttttaatagt 550
236 taaagctgat ttcagttata aaggagttac tatctggata agttcaaaga 600

```

RAW SEQUENCE LISTING

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:02

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set: N:\CRF4\05122006\J527100.raw

```

238 gctccttatt ataaaataca aactattttaa tatcaaaaata aaaaataaccg 650
240 agact 655
242 <210> SEQ ID NO: 5
243 <211> LENGTH: 66
244 <212> TYPE: PRT
245 <213> ORGANISM: Homo sapiens
247 <400> SEQUENCE: 5
248 Lys Tyr Val Gly Trp Lys Lys Glu Arg Val Val Ala Glu Phe Trp
249 1 5 10 15
251 Asp Gly Lys Ile Val Leu Val Leu Pro His Asp Pro Ser Phe Ala
252 20 25 30
254 Ile Lys Lys Val Glu Asp Val Gln Glu Leu Val Asp Asn Glu Leu
255 35 40 45
257 Gly Phe Gln Gln Val Val Pro Lys Cys Pro Asn Lys Ile Lys Thr
258 50 55 60
260 Phe Leu Val Ile Ser Gly
261 65
263 <210> SEQ ID NO: 6
264 <211> LENGTH: 1332
265 <212> TYPE: DNA
266 <213> ORGANISM: Homo sapiens
268 <400> SEQUENCE: 6
269 ggcacgagaa aaaacattaa gacagaactt aaaaacaata gattgactat 50
271 aatccaaaga cgagtgtacc tctaaccaca attttcattt atttttaaat 100
273 gtttccttca tggcctttct tgtggctcac cctatgcagt ttgtgtattt 150
275 gttgacaact ttatgtgttt ttaatatggt ttttgccaaa cttgggtttt 200
277 ccgagaccgt cttttctcag aggctcagtt ttaccgtcct atctgcagtc 250
279 ggctactttc agtgggcaga agaggccaca tctgcttcct gtaggccctc 300
281 tgggcagaag catgcgctgg tgtctcctcc tgatctgggc ccaggggctg 350
283 aggcaggctc ccctcgctc aggaatgatg acaggcaca tagaaacaac 400
285 ggggaacatt tctgcagaga aagggtggctc tatcatctta caatgtcacc 450
287 tctcctccac cagggcaca gtgacccagg tcaactggga gcagcaggac 500
289 cagcttctgg ccatttgtaa tgctgacttg ggggtggcaca tctccccatc 550
291 cttcaaggat cgagtggccc caggtcctgg cctgggcctc accctccagt 600
293 cgctgaccgt gaacgataca ggggagtact tctgcatcta tcacacctac 650
295 cctgatggga cgtacactgg gagaatcttc ctggaggtcc tagaaagctc 700
297 agtggctgag cacggtgcc ggttccagat tccattgctt ggagccatgg 750
299 ccgcgacgct ggtggtcatc tgcacagcag tcatcgtggg ggtcgcgttg 800
301 actagaaaga agaaagccct cagaatccat tctgtggaag gtgacctcag 850
303 gagaaaatca gctggacagg aggaatggag cccagtgct ccctcaccac 900
305 caggaagctg tgtccaggca gaagctgcac ctgctgggct ctgtggagag 950
307 cagcggggag aggactgtgc cgagctgcat gactacttca atgtcctgag 1000
309 ttacagaagc ctgggtaact gcagcttctt cacagagact ggtagcaaac 1050
311 cagaggcatc ttctggaaga tacacttttg tctttgctat tatagatgaa 1100
313 tatataagca gctgtactct ccatcagtgc tgcgtgtgtg tgtgtgtgtg 1150
315 tatgtgtgtg tgtgttcagt tgagtgaata aatgtcatcc tcttctccat 1200
317 cttcatttcc ttggcctttt cgttctattc cattttgcac tatggcaggc 1250
319 ctagggtgag taacgtgat cttgatcata aatgcaaaat taaaaaatat 1300
321 cttgacctgg ttttaaaaaa aaaaaaaaaa aa 1332

```

RAW SEQUENCE LISTING

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:02

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set : N:\CRF4\05122006\J527100.raw

```

323 <210> SEQ ID NO: 7
324 <211> LENGTH: 244
325 <212> TYPE: PRT
326 <213> ORGANISM: Homo sapiens
328 <400> SEQUENCE: 7
329 Met Arg Trp Cys Leu Leu Leu Ile Trp Ala Gln Gly Leu Arg Gln
330   1           5           10           15
332 Ala Pro Leu Ala Ser Gly Met Met Thr Gly Thr Ile Glu Thr Thr
333           20           25           30
335 Gly Asn Ile Ser Ala Glu Lys Gly Gly Ser Ile Ile Leu Gln Cys
336           35           40           45
338 His Leu Ser Ser Thr Thr Ala Gln Val Thr Gln Val Asn Trp Glu
339           50           55           60
341 Gln Gln Asp Gln Leu Leu Ala Ile Cys Asn Ala Asp Leu Gly Trp
342           65           70           75
344 His Ile Ser Pro Ser Phe Lys Asp Arg Val Ala Pro Gly Pro Gly
345           80           85           90
347 Leu Gly Leu Thr Leu Gln Ser Leu Thr Val Asn Asp Thr Gly Glu
348           95          100          105
350 Tyr Phe Cys Ile Tyr His Thr Tyr Pro Asp Gly Thr Tyr Thr Gly
351          110          115          120
353 Arg Ile Phe Leu Glu Val Leu Glu Ser Ser Val Ala Glu His Gly
354          125          130          135
356 Ala Arg Phe Gln Ile Pro Leu Leu Gly Ala Met Ala Ala Thr Leu
357          140          145          150
359 Val Val Ile Cys Thr Ala Val Ile Val Val Val Ala Leu Thr Arg
360          155          160          165
362 Lys Lys Lys Ala Leu Arg Ile His Ser Val Glu Gly Asp Leu Arg
363          170          175          180
365 Arg Lys Ser Ala Gly Gln Glu Glu Trp Ser Pro Ser Ala Pro Ser
366          185          190          195
368 Pro Pro Gly Ser Cys Val Gln Ala Glu Ala Ala Pro Ala Gly Leu
369          200          205          210
371 Cys Gly Glu Gln Arg Gly Glu Asp Cys Ala Glu Leu His Asp Tyr
372          215          220          225
374 Phe Asn Val Leu Ser Tyr Arg Ser Leu Gly Asn Cys Ser Phe Phe
375          230          235          240
377 Thr Glu Thr Gly
380 <210> SEQ ID NO: 8
381 <211> LENGTH: 1336
382 <212> TYPE: DNA
383 <213> ORGANISM: Homo sapiens
385 <400> SEQUENCE: 8
386 gtcagtcgcg agcgaacgac caagaggggtg ttcgactgct agagccgagc 50
388 gaagcgatgc ctaaatacaaa ggaacttggt tcttcaggct cttctggcag 100
390 tgattctgac agtgagggtt acaaaaagtt aaagaggaaa aagcaagttg 150
392 ctccagaaaa acctgtaaag aaacaaaaga caggtgagac ttcgagagcc 200
394 ctgtcatcct ctaaacagag cagcagcagc agagatgata acatgtttca 250
396 gattgggaaa atgaggtacg ttagtgttcg cgatttttaa ggcaaagtgc 300

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/527,100

DATE: 05/12/2006
TIME: 08:51:03

Input Set : F:\P1977R1 Sequence Listing.txt
Output Set: N:\CRF4\05122006\J527100.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 524
Seq#:15; N Pos. 688,734,762,788
Seq#:18; N Pos. 7,11,12,26,28,567,583,586,587,588,589,591,593,594,597,599
Seq#:18; N Pos. 601,602,605,609,617,619,630,634,638,640,641,646,647,648,651
Seq#:18; N Pos. 652,656,657,658,660,665,667,668,671,672,673,678,679,683,684
Seq#:18; N Pos. 687,689,692,693,694,697,698,702,704,711,713,716,718,719,721
Seq#:18; N Pos. 723,724,725,728,730,731,736,740,742,744,746,748,749,757,758
Seq#:18; N Pos. 759,760,763,764,767,768,769,770,774,775
Seq#:46; N Pos. 779
Seq#:62; N Pos. 3011,3213
Seq#:68; N Pos. 37
Seq#:76; N Pos. 72
Seq#:93; N Pos. 1823,1824,1825,1826,1827,1828,1829,1830,1831,1832,1833,1834
Seq#:93; N Pos. 1835,1836,1837,1838,1839,1840,1841,1842,1843,1844,1845,1846
Seq#:93; N Pos. 1847,1848,1849,1850,1851,1852,1853,1854
Seq#:106; N Pos. 421

VERIFICATION SUMMARY

DATE: 05/12/2006

PATENT APPLICATION: US/10/527,100

TIME: 08:51:03

Input Set : F:\P1977R1 Sequence Listing.txt

Output Set: N:\CRF4\05122006\J527100.raw

L:202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:500
L:890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:650
L:892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:700
L:894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:750
L:1133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:1155 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:550
L:1157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:600
L:1159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:650
L:1161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:700
L:1163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:750
L:3637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:750
L:5023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:3000
L:5031 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:3200
L:5279 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
L:5816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:50
L:7144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:1800
L:7146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:1850
L:7856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:400